Multiple Scattering of Light by Particles: Radiative Transfer and Coherent Backscattering

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Cambridge University Press, N.Y., 2006; $120.00 (hard cover).

Light scattering is a classical subject that was extensively developed in the 19th and early 20th centuries, culminating with van de Hulst's *Light Scattering by Small Particles* and *Multiple Light Scattering: Tables, Formulas, and Applications*. About 30 years ago, the field experienced a resurgence of activity.

This book lays the groundwork for both classical and modern developments in the theory of multiple scattering of light in media composed of randomly positioned particles. It leads the reader to the frontiers of research on several topics, such as radiative transfer theory and coherent backscattering.

It provides substantial treatments of classical topics that are once again areas of active research, including polarimetry in remote sensing, scattering in turbid media, and radiative transfer in the atmosphere and ocean. There are only a few books on this subject, and this one is a welcome addition. It is significant for its presentation of the basic principles and its exposition of recent developments.

This volume is a natural continuation of *Scattering, Absorption and Emission of Light by Small Particles* by the same authors. It is carefully written with detailed references. The target audience is mid- to upper-level graduate students in optics, electromagnetics and physics. However, anyone interested in scattering will profit from reading this outstanding book.

[Review by Christian Brosseau, professor of physics, Université de Bretagne Occidentale, France.]